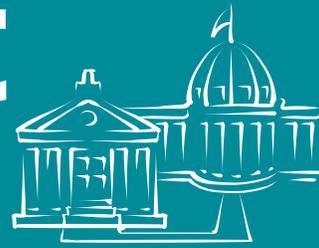


Assessment UPdate

March–April 2004
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Progress, Trends, and Practices in Higher Education

What's So Special About Assessment in the First Year of College?

Randy L. Swing

A STANDARD METAPHOR FOR THE FIRST COLLEGE YEAR IS AN OPEN DOOR welcoming new students as they move from high school, work, military service, or a “gap year.” Humans have long acknowledged the importance of beginnings and transitions such as the first year of college. In Roman culture, Janus was believed to rule over doors and gates as the god of beginnings, and American folk wisdom acknowledges the importance of “starting right” as the first step in ensuring successful outcomes. Educators have assigned special importance to the first year of college as the foundation for the college experience, an element too important to leave to chance. Over the past two decades, college faculty and staff have developed a host of educational initiatives to undergird this transition period. First-year seminars are one such innovation and, according to a 2001 survey by the Policy Center on the First Year of College, can be found at 94 percent of accredited colleges and universities. Other common components of first-year programs include mandatory academic advising, course placement testing, early warning systems for low academic performance, learning community structures, and special residential programming.

Until recently, assessment of first-year activities was often limited to evaluating their impact on first-to-second-year persistence in college. Over the past five years, assessment of first-year students and structures has developed rapidly, spurred by the accountability agenda of The Pew Charitable Trusts. New tools and techniques have been developed so that two-year and four-year institutions can assess what students do during the first year of college and how they change as a result of participating in educational activities. These new tools join the handful of existing survey instruments that were specially designed to assess student experiences in their first college year (see Exhibit 1).

A plethora of research on what matters in the first year and an array of new outcome assessment tools have made possible the development of comprehensive assessment

Note: I am grateful to Randy L. Swing and colleagues for providing four articles for this special issue on assessment of the first year. —Editor

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Assessment Update

Progress, Trends, and Practices in Higher Education

March–April 2004

Volume 16, Number 2

Editor

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strategies to measure learning outcomes and program-level impact of experiences during the first college year. It is now possible to consider the first college year as a discrete unit of analysis—a distinct time period intentionally designed to produce specific outcomes. As such, measurements of first-year students and programs can be viewed as summative assessments of this discrete set of educational experiences, and educators can establish how well they are meeting the goals established for the first year. First-year assessment can also be viewed as formative in that it establishes baseline and midprocess measurements early enough to allow faculty to change the learning outcomes desired by the end of a two-year or four-year degree program.

Summative measures of learning collected at the conclusion of an associate or bachelor's degree program are insufficient to help educators and students maximize learning and personal development across the college years. Managing the desired outcomes of college requires an understanding of when learning and growth occur during the educational process and which educationally purposeful initiatives or experiences are associated with gains for various subpopulations of students. Producing this kind of rich assessment of the first year is dependent on general principles of good assessment in higher education, such as ensuring that instruments are valid, reliable, and measure important constructs; that processes are inclusive of multiple constituencies; and that student time is respectfully and efficiently used. But assessment of first-year students and programs also presents unique challenges and opportunities that must be considered in addition to general good practices in assessment.

Collection of Baseline Data

A perennial tension in the first year is finding time to measure student skills, abilities, and cognitive knowledge at the point of entry without interfering with other goals for orienta-

Call for Contributions

The editor welcomes short articles and news items for *Assessment Update*. Guidelines follow for those who would like to contribute articles on outcomes assessment in higher education.

- **Content:** Please send an account of your experience with assessment in higher education. Include concrete examples of practice and results.
- **Audience:** *Assessment Update* readers are academic administrators, campus assessment practitioners, institutional researchers, and faculty from a variety of fields. All types of institutions are represented in the readership.
- **Style:** A report, essay, news story, or letter to the editor would be welcome. Limited references can be printed; however, extensive tables cannot be included.
- **Format:** In addition to standard manuscripts, news may be contributed via letter, telephone, or fax (317) 274-4651. The standard manuscript format is a 60-space line with 25 lines per page. If word processing is used, please submit a 3½" diskette and three paper copies of your article. Word is preferred. Articles may also be sent to <kblack@iupui.edu> as a Microsoft Word attachment.
- **Length:** Articles should be four to eight typed, double-spaced pages (1,000–2,000 words). Short news items and content for the Calendar and Book Review sections may be 100–500 words in length. Annotations of recent publications for the Resources feature should be about 50–100 words long.
- **Copyright:** Articles shall not have been registered for copyright or published elsewhere prior to publication in *Assessment Update*.
- **Deadlines:** Each issue is typically planned four months before its publication. Future deadlines for submitting articles are June 1 (September–October 2004 issue), August 1 (November–December 2004 issue), and October 1 (January–February 2005 issue).

Please address mailed contributions and comments to Trudy W. Banta, Editor, *Assessment Update*, Rm. 140 Administration Bldg., 355 N. Lansing St., Indianapolis, IN 46202-2896. ■

Exhibit 1. Selected Assessment Tools for the First College Year

College Student Experiences Questionnaire & College Student Expectations Questionnaire

Center for Postsecondary Research, Indiana University Bloomington
<<http://www.indiana.edu/~cseq/>>

College Student Inventory

Noel-Levitz
<<http://www.noel-levitz.com>>

CIRP—The Freshman Survey & Your First College Year

Higher Education Research Institute, University of California, Los Angeles
<<http://www.gseis.ucla.edu/heri/>>

The College Student Report—National Survey of Student Engagement

Center for Postsecondary Research, Indiana University Bloomington
<<http://www.indiana.edu/~nsse/>>

Community College Survey of Student Engagement

Community College Leadership Program, University of Texas at Austin
<<http://www.ccsse.org>>

Community College Student Experiences Questionnaire

Center for the Study of Higher Education, University of Memphis
<http://www.people.Memphis.edu/~coe_cshe/ccseq_main.htm>

First-Year Initiative

Educational Benchmarking, Inc.
<<http://www.webebi.com>>

tion and the first days of college. Whether an institution is dealing with traditional-age residential students or commuting nontraditional students, there are multiple demands, questions, and details that need attention in the first days of college. Spending time on assessment does not rank high on the priority list of most new students, nor of student life professionals who are assigned to assist students during this time of transition. Still, the first days of college provide an excellent opportunity to capture baseline information that will be needed at a later point to answer the question, “Did our educational practices make a difference?” First-year assessment must be efficient, limiting data collection to essential information that can be used in future assessment efforts and avoiding duplication of information already available elsewhere.

It is imperative that tangible results come from the first experiences students

have with collegiate assessment, to establish the importance of their participation in these and future assessment activities. Some campuses provide individualized student reports, sharing them directly with students or through academic advisers; others publicize results in the campus newspaper or in newsletters mailed to students and parents. Closing the loop in assessment includes feedback to participants; this is especially important in the case of first-year students, who will be asked to participate in future assessment efforts.

Age and Maturity Issues

Institutional review boards (IRBs) with oversight of human subject protection often require special handling for students who are under eighteen years of age. Some institutions require parental permission for underage students to par-

ticipate in assessments that ask individuals to report personal opinions or behaviors. It is possible, though time-consuming, to collect parental permission, but simply removing the small number of students who are underage from the survey population may have little or no impact on institution-level results. Assessment leaders should determine how many new students are under the age of eighteen (birth dates are often collected on admissions applications, so a simple computation can create a list of underage students for any targeted survey date), then consult their campus IRB early in the planning process to determine whether special actions should be considered for underage students.

Most first-year students, well trained by experiences in K–12 testing situations, take assessment tests seriously, but a small number of first-year students will exhibit immature behavior. The class clown who decides that his or her funny comments need to be shared with everyone in the testing room can be annoying and may inappropriately influence other students’ responses. Assessment leaders should provide adequate supervision in large testing rooms or use other strategies to ensure that each survey is completed independently. Even in well-managed situations, a few students may rebel by providing extreme responses on multiple-choice items or using shock-value words in qualitative assessments. Since such responses fail to provide helpful information and can be misleading, cleaning data and isolating outlier and inappropriate responses should be a standard process in the analysis of data.

Another maturity issue may arise from the assessment professional. A common mistake in reporting first-year assessment outcomes is assigning all observed change to the investigated educational experiences, without acknowledging, especially for traditional-age students, that some change may result from the natural processes of maturing or adapting to a new situation. The use of control groups can allow alternative hypotheses to be tested,

but often it is not possible or practical to establish a research protocol that absolutely isolates cause and effect variables. In such cases, reports of first-year assessment initiatives should include appropriate statements about the limitations of the study.

It is challenging to use the same assessment instrument for traditional-age and nontraditional-age new students, whether one is measuring behaviors, opinions, or knowledge. Nontraditional-age students might, for example, find a knowledge test of mathematics intimidating if they have not been in a math class for some years. Likewise, they might find questions about friendships, dating, roommates, and alcohol use to be inappropriate for their own life situation. Students know when an instrument doesn't really make sense, and many will tire quickly when none of the response alternatives is exactly right for their situation. Assessment leaders must consider whether an assessment instrument will work with various subgroups of new students. The tools that an institution selects send messages to new students who are trying to figure out how they fit in at college.

Power Issues

First-year students know that they are novices in higher education, so they may not be comfortable criticizing teachers or staff members or be willing to report socially unpopular opinions. Assessment leaders must weigh the advantages of using student identifiers against the potential for bias that exists when students know their answers are not anonymous. In general, it is best to avoid heavy-handed assessment mandates or other power plays that force students to participate in assessment activities.

Power issues arise when assessments are mandated or conducted in captive audience settings. It may be true that "first-year students will do what you tell them to do," but this may not be true when posttest data are collected at a later point. It may be a mistake to compare results

from high-stakes testing, such as placement test scores, with later tests that have no consequences for the test taker.

One way to avoid power plays is to conduct assessments at the convenience of students. A focus group conducted at 8:00 A.M. is a bad idea when working with traditional-age first-year students; a better time may be 11:00 P.M.

Educational Jargon

Eventually college students pick up the educational jargon of their campus and even embrace its acronyms, but first-year students may be confused by unfamiliar terms. While educators understand terms such as "learning community," "first-year seminar," "experiential education," "humanities," and "critical thinking," these may be undecipherable concepts for new students. First-year assessment instruments should avoid educational jargon or provide definitions and examples when needed, to ensure that participants understand questions and instructions.

New students tend to view the institution as a single unit rather than a collection of uniquely named divisions. For example, an intended assessment of academic advising might actually reflect student experiences in both advising and registration, because students experience these as one event. Likewise, new students will understand that the teacher leads the class, but they may not be able to differentiate the various classifications of teachers, such as full professor, part-time instructor, lecturer, or graduate assistant. Instrument pilot testing is one way to locate and remove jargon and distinctions that new students may not understand.

Establishing Comparison Groups

Many first-year initiatives are mandated for all students regardless of major. Evaluating the impact of a campuswide mandatory program is problematic due to the lack of a control group of students for comparison. One solution is a cross-

sectional comparison using students from the year before the mandatory program was developed. There are inherent problems with cross-sectional comparisons; the most frequent mistakes are underestimating the halo effect of a new program and failing to consider that new programs seldom are perfect in their inaugural year.

Programs that are elective rather than mandatory present a different problem in establishing comparison groups. While there are "treatment" and "nontreatment" groups, the treatment group is different from the nontreatment group because participants volunteered. Ways to control for potentially confounding elements of student motivation, skills, experiences, and personalities must be included in assessment plans for elective programs.

Conclusion

The hypothesis of this essay is simply that assessing first-year students and programs is grounded in good practices in assessment but requires attention to uniquely significant conditions of the first year. Summoning the assistance of Janus might be helpful, but it is imperative that first-year assessment plans combine the knowledge of institutional researchers, assessment practitioners, and frontline faculty and staff who regularly interact with first-year students. Understanding the unique aspects of the first college year provides the necessary foundation for successful assessment activities, a means to the desirable goal of maximizing student learning and growth during the critically important first year. New students deserve no less than the best foundation experiences that colleges and universities can provide. ■

Randy L. Swing is codirector and senior scholar at the Policy Center on the First Year of College located on the campus of Brevard College in Brevard, North Carolina.

Foundations of Excellence: A New Model for First-Year Assessment

Betsy Barefoot

OVER THE PAST TWENTY YEARS, the attention that colleges and universities have paid to students' first year experience has grown exponentially. The reasons for this phenomenon include changes in demographic characteristics of the students themselves, concerns about the high dropout rate that peaks between the first and second year, and recognition that the first year presents a unique opportunity to engage students in the habits of learning. The vast majority of American postsecondary institutions are currently offering one or more special initiatives focused on helping first-year students make a successful transition to higher education. And higher education literature abounds with what are described as best practices in a variety of first-year programs. But heretofore, campuses have lacked any systematic, valid definition of, or standards for, first-year excellence that go beyond a single best-practice program to a broader characterization of a campus's total approach to the first year. While faculty and administrators are often hesitant to embrace standards or to measure themselves against external benchmarks, they nevertheless are hungry for models of excellence, for approaches that work to produce higher levels of student learning and retention.

To meet what we believe to be both a need and a desire for a valid model of excellence against which to measure institutional efforts in the first year, we at the Policy Center on the First Year of College, with funding from The Atlantic Philanthropies and Lumina Foundation

for Education, are engaged in a two-year pilot project to define and validate such first-year standards. Through a project entitled "Foundations of Excellence™ in the First College Year," the Policy Center, in collaboration with the American Association of State Colleges and Universities (AASCU), the Council for Independent Colleges (CIC), and Pennsylvania State University's Center for the

Over 200 member institutions of both organizations agreed to participate in the project and to establish campuswide Foundations task forces to consider an initial short list of six Dimensions developed by the Policy Center and our Penn State research partners. Foundational Dimensions statements were designed to be defining characteristics of an institution's effectiveness in promoting the learning

Campuses have lacked any systematic, valid definition of, or standards for, first-year excellence that go beyond a single best-practice program to a broader characterization of a campus's total approach to the first year.



Study of Higher Education, is working to provide institutions with a template and a process for broad assessment of the first year as well as a model for first-year excellence.

Project Specifics

The Foundations of Excellence project began in February 2003 with an open invitation to chief academic officers from the member institutions of both AASCU and CIC (more than 900 institutions). These campuses were invited to participate with the Policy Center in the development of standards for the first year, which we termed "Foundational Dimensions™," or "Dimensions" for short.

and success of every first-year student. Learning and success include content and academic skill building, higher-order cognitive skill development, psychosocial development, and persistence in degree completion.

We encouraged task forces to edit the Dimensions statements, delete any that were judged to be irrelevant, or suggest additional statements. The collective work of 219 task force groups resulted in a number of changes to the initial Dimensions statements and the creation of additional Dimensions. Ultimately, representatives of AASCU and CIC institutions agreed on eight common Dimensions (listed in Exhibit 1), but institutions from each group also suggested

Exhibit 1. Foundational Dimensions (common to both AASCU and CIC institutions)

Foundations institutions . . .

1. Approach the first year in ways that are intentional and based on a philosophy or rationale of the first year that informs relevant institutional policies and practices.
2. Create organizational structures and policies that provide a comprehensive, integrated, and coordinated approach to the first year.
3. Facilitate appropriate recruitment, admissions, and student transitions through policies and practices that are intentional and aligned with institutional mission.
4. Elevate the first year to a high priority for faculty.
5. Serve all first-year students according to their varied needs.
6. Engage students both in and out of the classroom in order to develop attitudes, behaviors, and skills consistent with the desired outcomes of higher education and the institution's philosophy and mission.
7. Ensure that all first-year students experience diverse ideas, worldviews, and peoples as a means of enhancing their learning and preparing them to become members of pluralistic communities.
8. Conduct assessment and maintain associations with other institutions and relevant professional organizations in order to achieve ongoing first-year improvement.

a few additional cohort-specific Dimensions statements.

Currently, Policy Center staff are working with 12 AASCU and 12 CIC campuses, which were selected from the larger group of 219, to pilot a process for using these Dimensions statements as a means for assessing the first year of college. These 24 colleges and universities, called "founding institutions," are participating in an intensive yearlong assessment project, using both qualitative and quantitative measures to assess their campus's achievement of each Dimension.

Qualitative Analysis. Qualitative analysis is being conducted by each campus task force through the use of a set of Policy Center performance indicators that were developed for each Dimension by staff of the Policy Center. Performance indicators are selected measurements of specific elements of the broader Dimension statement. We developed performance indicators because it would be difficult and inefficient to measure every possible component of each Dimension statement. The areas covered by the Policy Center's performance indicators were selected because of their general level of importance in a high-quality first college year and because

the performance on these specific tasks is likely to be representative of performance across the broader Dimension. Policy Center performance indicators are in the form of questions, and campus task force members are asked to respond to each question, indicating their collective judgment of their campus's level of performance on each Dimension. They are also asked to substantiate their judgment with evidence. This evidence, which campuses submit to the Policy Center, can take the form of available data, research findings, or written documentation. Task force groups are also given permission to add to or modify the performance indicators provided by the Policy Center.

Quantitative Analysis. In order to gather additional quantitative evidence of achievement of the Foundational Dimensions, participating institutions are also required to take part in the National Survey of Student Engagement (NSSE). Certain NSSE items relate directly to the Dimensions statements, and student responses will provide another valuable source of data. Finally, Penn State's Center for the Study of Higher Education is administering faculty and administrator surveys that also relate to Dimensions

statements. The results of these various quantitative measures will provide additional evidence about an institution's achievement of the Dimensions—either substantiating or refuting task force judgments.

The Center of the Project: The Institutional Task Force

The Foundations of Excellence project requires a new type of assessment—one that does not rely solely on quantitative measures or institutional research expertise. Rather, the engine of this process is the institutional task force. Project participants from both the larger group of 219 institutions and the smaller group of 24 have provided consistent feedback to the Policy Center about the value of the task force as a meaningful structure for undertaking broad, campuswide evaluation of the first year.

In our initial communication with participating institutions, we suggested that each task force include faculty, student affairs professionals, academic administrators (ideally the chief academic officer), institutional research or assessment officers, and students—individuals who rarely sit in the same room for any length of time—in its focus on the first year experience. We further suggested that before beginning its analysis, each task force should undertake a process to educate itself about the institution's first year experience. To that end, we provided a template for investigation called the "Current Practices Inventory" <<http://www.brevard.edu/fyfoundations/inventory.htm>>. The Current Practices Inventory furnished a structure for each task force to gather information about (1) existing first-year policies and programs, their purposes, when they were established, and how they are evaluated; (2) how the campus or various units define "first-year student" and when those students enter the institution; (3) student demographic characteristics, including gender, age, race or ethnicity, and first-generation status; and (4) existing studies that provide

data on entering students and their progress. For virtually all participants, this Current Practices Inventory represented the first campuswide gathering of information about the first year experience that had ever been undertaken. Participants discovered policies of uncertain origin, programs that duplicated each other, and missing data points. For instance, the majority of institutions found that they had no data on the number or percentage of

What the Foundations Project Adds to Existing Assessment of the First Year

American higher education benefits from a number of instruments that provide input and output information about first-year students. UCLA's Cooperative Institutional Research Program (CIRP) Freshman Survey paints a valuable picture of students at entry that can be used

year by enabling institutions to conduct a rich and detailed examination of their environments and to connect findings to student-level input and outcomes data.

The Future of the Foundations Project

This two-year pilot project is just the beginning of what we conceive as a much more ambitious effort that we hope will involve other institutional sectors in addition to small private CIC campuses and regional public AASCU campuses. Our plan is to expand the building of first-year Foundational Dimensions to other types of institutions, especially community colleges and research universities. These standards could then be used as a means for external validation and recognition of colleges and universities that achieve excellence in the first year experience—not only with respect to the students they recruit and admit but also in terms of the quality of the experience that is intentionally designed for these students.

We acknowledge that this is an ambitious project, but we are excited about our progress to date. We are especially gratified to see the value of the assessment methods we have designed—methods that involve an entire campus community in a comprehensive evaluation of its approach to the first year. We welcome readers' questions and feedback and look forward to welcoming more institutions as participants in the Foundations of Excellence project <<http://www.brevard.edu/fyfoundations/>>. ■

Betsy Barefoot is codirector and senior scholar at the Policy Center on the First Year of College located on the campus of Brevard College in Brevard, North Carolina.

The Foundations of Excellence project adds an important component to a thorough analysis of the first year by enabling institutions to conduct a rich and detailed examination of their environments and to connect findings to student-level input and outcomes data.



first-generation first-year students. This process of task force education has ensured that all task force members have essential knowledge about the first year experience that will enable them to make accurate judgments about the strengths and weaknesses of their institution's first-year efforts.

As could be expected, the different voices on each task force have provided different perspectives on the first year and have made the process of reaching a collective judgment on any single performance indicator challenging. But the conversations and debates reportedly have been invaluable, and we believe that they provide a usable model for other kinds of campus assessment.

A natural outgrowth of measuring an institution's current level of achievement is recognizing the need for change, and the Dimensions statements are clearly suggestive of actions that a college or university might take to improve the first year. For instance, in assessing achievement of Dimension 1, many task force groups at institutions that have no campuswide philosophy or rationale for the first year are planning to begin the process of creating such a statement.

as input data both by individual institutions and American higher education collectively. Both the National Survey of Student Engagement and Your First College Year (an end-of-first-year survey that is a follow-up to the CIRP Freshman Survey) provide important quantitative data about intermediate outcomes of the first year. Other instruments measure student satisfaction or developmental growth. But none of these survey instruments is designed to yield in-depth information about institutional environments—that is, what colleges and universities intentionally do to support the first year. The gathering of information about how campuses structure and implement the first year, if it is to be meaningful, generally necessitates in-depth qualitative and quantitative approaches.

Although we acknowledge that inputs (that is, characteristics of the entering students) are a significant factor in predicting learning and retention, we also believe that campus environments—how institutions structure the learning experiences of students—play an important role in student achievement. The Foundations of Excellence project adds an important component to a thorough analysis of the first

The Cooperative Institutional Research Program Freshman Survey and Your First College Year: Using Longitudinal Data to Assess the First Year of College

Jennifer R. Keup

MILLIONS OF MEN AND WOMEN enter colleges and universities as first-year students each fall and, according to statistics provided by the U.S. Department of Education, enrollment in higher education institutions is expected to increase for years to come. Entering students come from diverse backgrounds, went through different secondary school environments and experiences, have varying levels of academic preparation, and seek different types of college experiences, but all will go through the process of adjusting to their new lives as college students. In order to ease this academic and social transition, to forge a solid foundation for the rest of the academic career, and to increase the likelihood that students will persist through the second year and beyond, curricula and cocurricular programs are designed to meet the needs of first-year students and facilitate learning and development. Maximizing the effectiveness of these efforts requires comprehensive data that provide academic, social, and personal information about the same cohort of students at both college entry and the end of the first year (that is, longitudinal data). Monitoring the change and development of a cohort of students while taking into account their previous experiences, behaviors, and tendencies provides important empirical information to support human and fiscal resource allocations, direct curricular reform initiatives and first-year interventions, and inform enrollment management decisions. In the absence of these data, campus decision

makers are limited in their ability to evaluate the needs of first-year students; the effectiveness of first-year programs, policies, and pedagogies; and the cognitive and affective development of students in that institutional environment.

The CIRP Freshman Survey and YFCY: A Legacy of Longitudinal Assessment

Within the vast landscape of assessment and research in higher education, the Cooperative Institutional Research Program (CIRP) housed at the Higher Education Research Institute (HERI) at the University of California, Los Angeles, represents the only national survey program designed specifically for longitudinal assessment. CIRP was established by Alexander W. Astin at the American Council on Education in 1966 and began as a national survey of entering college students, titled the Freshman Survey, which continues to be administered annually to over 400,000 students at hundreds of colleges and universities nationwide (Astin, 2003). In an effort to address the various aspects of students' academic and personal lives, this instrument contains a broad array of items, including measures of demographic characteristics; expectations of the college experience; academic experiences in secondary school; high school and community involvement; degree goals and career plans; college finances; attitudes, values, and life goals; and reasons for attending college. Participating institutions are pro-

vided with campus results and comparative data from peer institutions, and the weighted national data are disseminated annually in a report published by HERI titled "The American Freshman: National Norms." As such, Freshman Survey data provide an important resource for institutional assessment and accreditation and establish a "normative profile of the American freshman population" for use in policy analyses, educational research, and as a context for institutional research (Sax, Lindholm, Korn, Astin, and Mahoney, 2002, p. 1). However, the CIRP Freshman Survey's most important contribution to assessment in higher education is its ability to serve as a pretest for subsequent longitudinal follow-up of entering students.

In 1999, HERI forged a partnership with the Policy Center on the First Year of College at Brevard College to develop one such follow-up instrument, which focused exclusively on the first year of college. This new survey was to be administered at the end of the first year and would posttest several items from the CIRP Freshman Survey, thereby providing institutions with information about college environments, students' collegiate curricular and cocurricular experiences, and student outcomes of the first year. Similar to the Freshman Survey, the follow-up instrument attempts to capture the development of the whole student by covering a variety of areas, including academic achievement, skills, and engagement; learning strategies and pedagogical practices; residential and employment experiences; interactions with peers, faculty,

and staff; campus involvement; satisfaction with curricular and cocurricular activities; patterns of behavior; student values and goals; self-confidence and feelings of personal success; and plans to enroll for the second year. This survey, titled Your First College Year (YFCY), is now entering its fifth year of national administration. When used in conjunction with data from the CIRP Freshman Survey, YFCY data enable institutions to “assess change and growth in their students over time” (Astin and Lee, 2003, p. 659) and to identify features of the first year that encourage student learning, involvement, satisfaction, retention, and success, thereby enhancing first-year programs and retention strategies at campuses across the country. To date, YFCY remains the only national survey that provides the potential for longitudinal assessment of students during their first year of college.

Longitudinal data collected from the CIRP student surveys, including the Freshman Survey and YFCY, have been used in countless studies of students’ cognitive and affective development and college impact with national, consortium, system-wide, and institution-level data. At <http://www.gseis.ucla.edu/heri/publications.html>, readers will find information about an array of research studies using HERI data to investigate effects of service and service learning, the impact of first-year seminars, gender differences in students’ emotional health, aspects of religious and spiritual development in new college students, the effects of learning communities, persistence in college, and other issues of importance in the first year of college. Using the detailed baseline and follow-up data provided by the CIRP instruments, these investigations draw on several methodological frameworks to study and improve the first year of college.

Using YFCY Data to Enhance Campus Assessment Efforts

The institutional data generated by the CIRP Freshman Survey and YFCY, particularly when they are used longitu-

nally, allow important descriptive, comparative, and multivariate analyses that can enhance understanding of the first college year in a specific campus setting. Further, because both surveys collect student identifiers, any analyses that use these data can be enriched by merging institutional data gathered from other sources (for example, registrar’s data, campus-based assessment efforts, or institutional data from other surveys such as the CIRP College Student Survey) into the data set. Following are brief descriptions of several types of analyses to consider when working with the Freshman Survey, YFCY, or other national assessment data.

Comparative Analyses. Because institutional reports of students’ responses to the CIRP Freshman Survey and YFCY are compared to national and institutional peer group aggregates, participating colleges and universities can determine where their first-year cohort stands relative to first-year students at peer institutions, aspirant institutions, or a national sample of entering college students. In addition, HERI can provide electronic data files of individual survey responses at your institution for both instruments and will merge student responses from both time points (college entry and the end of the first year) when both Freshman Survey and YFCY data are available. Thus, participating institutions can disaggregate the data to conduct comparisons between different groups of students at their college and to understand how campus experiences may differ for various subpopulations of entering students. For example, it is possible to compare first-year outcomes such as adjustment or retention based on participation in a learning community, service-learning course, or first-year seminar. It is also possible to analyze these data by gender, race/ethnicity, major, or place of residence or by involvement in particular activities. The survey instruments also include space for supplemental questions of local relevance, thereby allowing participating schools to

add important institution-specific variables to their Freshman Survey and YFCY data. These customized items provide institutions with additional opportunities to conduct within-institution analyses of their first-year students and programs (for example, to assess a specific campus program, to monitor the impact of new institutional initiatives or campus innovations, or to gather information required for accreditation committees).

Measures of Association. The CIRP Freshman Survey and YFCY collect information on a wide range of cognitive and affective measures. Both national findings and institutional reports provided to institutions that use these instruments are based primarily on the distribution of student responses across different answer choices (that is, frequency distributions) and on the calculation of the mean of the sample for each item on the survey. The next step is to investigate the potential relationships *between* variables, using measures of association such as correlations and cross-tabulations. The YFCY data allow institutions to look at the relationship between numerous first-year experiences and key outcomes of college in order to answer questions such as the following: What is the link between campus involvement and adjustment? How strong is the relationship between service or volunteer work and various aspects of personal and academic development? What is the association between pedagogical practices and students’ academic engagement and achievement?

Correlation analyses provide valuable information about the direction and strength of the relationship between variables. Three-way cross-tabulations allow campus personnel to investigate relationships among YFCY variables while controlling for the influence of key input variables as measured by items on the CIRP Freshman Survey. Given that students do not enter college as blank slates, it is important to consider their previous experiences, habits, and tendencies when investigating relationships between

elements of the first-year campus environment and student outcomes (Astin, 1991, 2003; Astin and Lee, 2003). For example, using a correlation or two-way cross-tabulation makes it possible to investigate the relationship between a specific pedagogical practice and first-year grade point average or any other measure of academic achievement. However, the additional level of analysis provided by a three-way cross-tabulation allows the researcher to consider individual students' tendencies toward academic success by including their high school grade point averages in the inquiry. In this manner, the researcher is able to explore the relationship between the key variables of interest (in this case, pedagogy and academic outcomes).

Factor Analyses. The CIRP Freshman Survey and YFCY provide a deep and broad study of student experiences through measures of numerous aspects of secondary and postsecondary education. These measures are valuable to researchers, faculty, and campus decision makers in academic affairs and student affairs. While the comprehensive nature of these surveys enhances their utility and interest, the Freshman Survey and YFCY data also lend themselves to distillation via factor analyses, which cluster numerous variables under a few broad topic headings. For instance, YFCY includes several measures of interaction with fellow students. Some examples include studying with peers, participation in student organizations, and feelings of success at establishing friendships with other students. Through the process of factor analysis, these items can be combined with other important measures of student-to-student interaction under the same rubric. Analyses conducted on weighted national norms for the Freshman Survey, national aggregate data for the YFCY, and institutional samples from both instruments yield factors that represent constructs such as student satisfaction, academic success, religiousness and spirituality, cognitive development, student involvement, per-

sonal development, and interaction with faculty (Astin, 1993; Sax, and others, 2002). Campuses can use these factors to streamline presentations of results to various campus constituents and to aid in multivariate analyses of the survey data.

Multivariate Analyses. When conducting analyses with Freshman Survey and YFCY data, it is important to note that descriptive analyses may provide important information about *relationships* between variables, but multivariate analyses yield the maximum information about the potential *causal* connections between variables. Since YFCY is a follow-up to the Freshman Survey, as well as a measure of first-year experiences, the longitudinal data generated by these instruments fit nicely with the input-environment-outcome (I-E-O) model of assessment developed by Astin (1991). The primary assumptions of this model are that characteristics and tendencies that students possess prior to attending college (*inputs*) can, and do, simultaneously influence (1) students' selection of a particular institutional setting and their experiences in that *environment* and (2) the *outcomes* of being in that environment (Astin, 1991). In fact, recent research using CIRP survey data indicates that as much as 86 percent of the variance in student outcomes can be explained solely on the basis of entering student characteristics (Astin and Lee, 2003), illustrating the importance of longitudinal research in assessing the impact of institutional programs, pedagogies, and policies.

The Freshman Survey, administered at college entry, gathers valuable baseline (*input*) data while YFCY, administered at the end of the first year, gathers information about institutional characteristics, practices, programs, and student experiences (all aspects of the *environment*) as well as important *outcomes* of the first college year. Using the I-E-O model to analyze these data yields assessment results that adjust for input differences in order to produce a less biased estimate of

the comparative effects of different environments (for example, first-year educational practices, campus programs, and student life experiences) on student outcomes. As such, this model supports research on important first-year issues such as the degree to which (1) classroom practices and pedagogies predict students' satisfaction with the quality of instruction, (2) social and academic experiences affect students' sense of overall community on campus, and (3) specific first-year experiences and interpersonal interactions lead to adjustment and the decision to persist at the institution.

Conclusion

The longitudinal data collected by the Freshman Survey and YFCY create a system of assessment that fully captures the experiences of students, evaluates institutional impact and effectiveness, and measures student change and development over time. However, the bottom line is that the full potential of these data is achieved only when they are used to assess the needs of first-year students and the effectiveness of campus-based first-year initiatives. The ultimate benefit is achieved when these efforts translate into new or improved campus policies and initiatives meant to ease students' transition to college and to enhance institutional impact on student outcomes. ■

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Principles for Assessing Student Engagement in the First Year of College

John Hayek, George Kuh

IF SOMEONE ASKED FOR INFORMATION about the experience of a typical first-year student on your campus, what would you say? To what evidence would you turn? And how confident would you be that your information represented behaviors that lead to student success?

While most institutions know how many of their faculty members have terminal degrees and the number of books in the library, too few have reliable information about the frequency with which first-year students discuss ideas with faculty members outside class, how much time they spend on academic activities, or how often they interact with students who are different from themselves. These and other educationally purposeful activities are important because they contribute to a variety of desirable outcomes of college (Pascarella and Terenzini, 1991). Indeed, this is one of the unequivocal conclusions from the last half century of research on the impact of college on students: what matters more to success in the first year is what students actually do, not what institutions have in terms of resources, such as facilities and faculty credentials. With this in mind, those responsible for assessing the quality of undergraduate education have two key tasks. The first is to obtain information about the time and energy that students devote to activities that decades of research indicate are associated with learning and personal development—what is becoming known as student engagement. The second task is to communicate this information effectively, so that it can be

used productively for institutional decision making and improvement.

In this article, we offer five principles to guide assessment efforts that promise to yield a deeper, more meaningful understanding of what students and institutions do that contributes to a high-quality first-year experience. Although our examples are drawn from the use of the National Survey of Student Engagement

levels of learning and development (Kuh, 2001, 2003). NSSE personnel have evaluated the psychometric properties of the survey and administration processes with within-year and year-to-year stability analyses, test-retest studies, and checks for nonrespondent bias. The items and results have been vetted with focus groups of students and faculty members (Kuh and others, 2001). In addition, some col-

What matters more to success in the first year is what students actually do, not what institutions have in terms of resources, such as facilities and faculty credentials.



(NSSE), the principles apply to the use of other data sources, such as the College Student Experiences Questionnaire, the Your First College Year survey, and locally administered surveys.

Principles for Using NSSE to Assess the First-Year Experience

1. *Become familiar with the conceptual and empirical foundations of student engagement.* Some faculty and staff members question the validity and reliability of surveys, especially self-reported student data. Assessment experts designed NSSE (pronounced “nessie”) to measure student behaviors and institutional practices that are empirically linked to high

levels of learning and development (Kuh, 2001, 2003). NSSE personnel have evaluated the psychometric properties of the survey and administration processes with within-year and year-to-year stability analyses, test-retest studies, and checks for nonrespondent bias. The items and results have been vetted with focus groups of students and faculty members (Kuh and others, 2001). In addition, some colleges and universities use results from other national surveys, student and faculty focus groups, and individual interviews to triangulate and verify that NSSE results accurately represent their students’ educational experiences. With our permission, other schools have added NSSE questions to local instruments to corroborate their NSSE results. Before discussing student engagement results at a faculty or administrative retreat, we recommend reviewing the “Frequently Asked Questions About NSSE’s Psychometric Properties” and the 2003 NSSE annual report (National Survey of Student Engagement, 2003). Having a few copies on hand is also a good idea. For more information about NSSE’s conceptual framework and

psychometrics, visit the NSSE Web site at <http://www.iub.edu/~nsse/html/psychometric_framework_2002.htm>.

2. *Make sure the sampling scheme matches the intended uses of the data.* A valid survey of randomly sampled students can produce reliable institutional point estimates with only forty to fifty respondents. While this may be statistically defensible and adequate for institutional benchmarking purposes, the results may not get much attention from the first-year experience committee, department chairs, or faculty members. If you wish to mobilize key actors for institutional improvement, the more respondents you have, the better off you will be. A larger number of respondents decreases sampling error and enhances the face validity of the results. A sampling error calculator on the NSSE Web site <<http://www.iub.edu/~nsse/html/sampling-error.shtml>> can help determine the appropriate sample size for your survey. One way to increase the number of student responses is to survey more students. In the case of NSSE, this means increasing the standard NSSE random sample, which ranges from 450 students at smaller colleges to 3,000 at larger universities (depending on undergraduate enrollment and mode of survey administration). Another approach is to increase your sample with students from groups about which more information is desired, such as those who participated in a summer bridge program or those in freshman interest groups, learning communities, or the honors college. A third way to get data from more students is to increase response rates. Try calling and reminding students to complete the survey, offering an incentive such as including respondents' names in a raffle, sending personalized e-mail messages or postcards, placing articles in campus and local newspapers, and asking academic advisers, faculty members, residence hall staff, and student leaders to remind students about the survey. These extra efforts are worth it, because the more respondents you recruit, the more credible and useful the data will be.

3. *Link NSSE results to other relevant sources of information about the first-year experience.* Student responses to NSSE are confidential, and individual respondents are never identified in reports. However, NSSE assigns each student a unique identification number. This makes it possible to link student responses to other institutional data sources (for ex-

Management Systems and the Policy Center on the First Year of College.

4. *Tell the first-year experience story early and often.* Good assessment requires valid, reliable data, presented in an easy-to-understand format and shared widely. To maximize the utility of student engagement results and related information, it helps to array the data in different

The more respondents you recruit, the more credible and useful the data will be.



ample, transcripts) for more detailed analyses by the college or university, provided the institution has permission from its own human subjects review board to do so. For example, Indiana University Bloomington analyzed its first-year students' engagement scores, persistence rates, and grades and found that less engaged students were from 7 to 13 percent less likely to return for their sophomore year. In a first-year class of 7,000 students, this translates to hundreds of at-risk students who could be identified as potential low engagers during orientation or early in the academic year by using an instrument similar to the College Student Expectations Questionnaire. Sharing the results appropriately with advisers, residence hall staff, and others who work with first-year students could improve the institution's early warning system. Most campuses have other data available—such as high school transcripts, information from the SAT's Student Descriptive Questionnaire or ACT's Student Profile, the Cooperative Institutional Research Program Entering Student Survey administered by UCLA, or Noel-Levitz satisfaction survey information—that can be linked to NSSE results for these and other purposes. To learn what relevant data sources may exist on your campus, consider using some type of data audit process, such as the one offered by the National Center for Higher Education

ways and present the findings in multiple settings. Ideally, you'll be able to tailor presentations to respond to the interests of various groups. NSSE staff have designed the sections of the institutional report to be easy to reproduce and distribute campuswide. We also provide a video that introduces the concept of student engagement, explains why it's important, and provides examples of how institutions are using NSSE. A customizable PowerPoint template converts basic NSSE results into a campus-specific presentation. Consider placing some or all of this information on the Web, where it can be accessed easily. This demonstrates your school's interest in and support of quality improvement.

The next step is to organize focused discussions about effective educational practices and their relationship to student engagement in the context of the institution's mission, culture, and teaching and learning goals. When these discussions are well planned, many actionable priorities will usually emerge. One way to stimulate faculty interest is to compare NSSE findings to data from the Faculty Survey of Student Engagement, a modified version of NSSE that looks at student engagement from the faculty perspective. Featuring the two sets of results in a retreat or workshop setting can generate productive dialogue about educational practice and student learning.

Students can be involved in interpreting results and identifying suggestions for enhancing student engagement; for example, student representatives can be included on the first-year experience assessment committee and results can be shared with student organizations. At Oregon State University (OSU), the vice provost for student affairs asked first-year students in the Leaders of Positive Innovation Program to review OSU's NSSE data and provide feedback to the administration. Several dozen students divided themselves into work groups, obtained other relevant data, conducted some additional research, and then made recommendations to the Provost's Council about ways to increase faculty-student interaction beyond the classroom and encourage student participation in campus organizations. Staff at another campus created posters highlighting NSSE results and displayed them in the student union. At Norfolk State University and Evergreen State College, students who read their schools' NSSE reports were encouraged to write editorials for campus newspapers. Staff at other campuses have used the Web, e-mail messages, and printed material to involve students in the first-year assessment process.

5. *Use different approaches to estimate performance.* There are two general approaches to estimating the quality of the first-year experience. One or both may be appropriate, depending on your institution's situation. The normative approach compares your first-year students' responses to those of their counterparts at other colleges and universities. NSSE encourages colleges to join a consortium that allows them to add up to twenty mission-specific questions to NSSE's core survey. Urban universities, women's colleges, research institutions, private liberal arts colleges, Christian colleges, and engineering schools have learned more about the first-year experience of their students through consortium participation. NSSE staff also conduct special peer comparisons on an as-requested basis to help institutions answer specific questions (for example, How do our women majoring in

business compare with women business majors from across the country?). If your institution aspires to be among the most engaging of its type, you could compare your first-year student engagement benchmark scores with those of the top 5 percent of institutions in each area of effective educational practice as shown in the tables at the end of NSSE's 2003 annual report (National Survey of Student Engagement, 2003). If the differences between your institution's average scores and those of the top performers are substantial, you could consider visiting one or more highly engaging institutions to learn about their policies and practices.

A second approach to benchmarking is the criterion-referenced approach, wherein comparisons with other schools are set aside for the time being; instead, the goal is to determine the level of student engagement appropriate for your setting, given your students' characteristics and your institutional mission, size, curricular offerings, funding, and so forth. For example, faculty in one department may conclude that a minimum of 75 percent of their first-year students should have at least occasional contact with faculty members outside the classroom and that 50 percent of students should interact frequently with students from different backgrounds. These engagement thresholds then become the criteria to which that department aspires, and they are used to measure progress.

NSSE's Institute for Effective Educational Practice provides assistance in using these and other benchmarking activities to institutions and university systems. Institute personnel can help plan and conduct planning workshops and retreats that address a host of issues related to student success—for example, self-studies for accreditation and retention. Another service provided by the institute is conducting campus audits to discover how policies and practices affect student engagement, to identify areas for improvement, and to make recommendations on how to enhance student success.

Conclusion

To more fully realize the promise of assessment, information about student engagement must be converted into action. Incorporating the five principles discussed in this article in a first-year experience assessment program will position your campus to take maximum advantage of NSSE and other data sources in order to enhance student success. ■

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Subjectivity, Assessment, and Treasure Troves

Linda Ann Weeks

A GREAT DEGREE OF SUBJECTIVITY is involved in my favorite pastime: finding treasures at antique shops. *Subjective* is defined as “personal; individual; placing emphasis or reliance on one’s own moods, attitudes, opinions” (Stein, 1980, p. 1308). Based on my feelings and emotions on any particular antique hunting day, certain items consistently say to me, “Take me home with you.” I am particularly drawn to animal treasures of any type.

Not surprisingly, I have chosen a video on animals to teach my graduate classes about subjectivity in assessment. The Time-Life video that I use is called “Bonkers for Babies.” Subjectively speaking, I view it as a fast-paced, fun, variety-packed documentary on animals in various zoo habitats. The viewer is able to see close-up footage of animals in their bonding relationships with their mothers. Watching the video, I easily make a mental connection between how some animals in the animal kingdom are supportive, nurturing, and present for their young and how my mother has always been supportive, nurturing, and present for me.

Although my passion is for animals, my mother’s love is for plants. She has explained to me that while growing up she never had animals as pets, only farm animals for work and food purposes. When asked about the farm cat, she recalls, “We had no time to be close to a cat; we worked from sunup to sundown in the fields.” Perhaps her days with the plant kingdom of corn, cane, and cotton explain her present love of flowers and

plants. Her father took care of the farm animals, so she did not form any attachments to them. My childhood embraced pets. Thus, as I explain to my graduate

the degree of subjectivity in assessment practices. Achieving this is possible through providing students with clear targets to hit (Stiggins, 1994), something

The choices as to what to include in one’s teaching toolkit are subjective and constructively based.



students during the postsession discussion of the video, I am sure that I rate this animal video higher than my mother would. Her choice for a video might be one on Cypress Gardens—the plant kingdom instead of the animal kingdom. So the choices as to what to include in one’s teaching toolkit are subjective and constructively based.

Objectivity, of course, is diametrically opposed to subjectivity. *The Random House College Dictionary* defines *objective* as “not affected by personal feelings or prejudice; based on facts; unbiased” (Stein, 1980, p. 916). *Objective* as a noun is defined as “a target.” Based on these definitions, I believe it is impossible to be totally objective in any assessment endeavor. As I tell my students, even on “objective” paper-and-pencil assessments, someone had to write the questions and choose which “important” concepts to leave in and take out. These choices naturally involve a degree of constructivist bias and personal judgment. However, teachers can assist students by reducing

that I intentionally did *not* do in this assessment activity.

For this video assessment, students were given the “Evaluation of Video Activity” form, which contains five categories and blank space for writing about each. The categories are content, structure, sensitivity to audience, audio, and visual. My instructions were to watch the video and rate it in each of the five categories with a score of 5 (outstanding), 3 (average), or 1 (very poor). Students were left to their own devices to decide how to interpret the categories. Students also were instructed to write one or two sentences for each category to support their rating. Some examples of students’ rationales for their ratings of the video follow:

Content

5 I am an animal lover anyway, so I found the content completely entertaining. I also enjoyed the parallels Jack Hanna draws between humans and animals.

Outstanding content because it talked about the development process and car-

ing for young animals. The content was outstanding. They showed a wide variety of animals from wild animals to farm animals . . . from various locations around the world. Outstanding because it gave lots of information about each animal and its babies.

3 Skips around to too many places. Should spend more time on each subject. Did not give much info on the animals' backgrounds.

1 The goal of the video is not clear!

Structure

5 Good beginning and title; clear introduction to subject matter. Easy changes from one animal to the next. I enjoyed the structure. Each segment was interesting.

3 The video is somewhat disjointed, going from one place to another. It does not have a sequential structure, but is a compilation of various places. There wasn't in my opinion any particular structure—random animals as well as settings. The structure was poorly developed. A particular animal would be discussed briefly and then the video would jump to another animal, as well as setting.

1 The subjects are not categorized according to their traits.

Sensitivity to Audience

5 Time-Life videos are intended for viewing by the general public. Eye-catching and appropriate language for audience. I think the audience would be school age (elementary) and it is appropriate. Small children will be fascinated, while older children will see and gather great amounts of information. . . . Quite sensitive to an audience of young children. It did discuss "mating" but did not show actual footage which might be offensive. Very sensitive—animals were related to mother/child bonding. Outstanding bal-

ance. . . . Keepers show great concern for needs of animals.

3 Does not take into consideration how "naturalists" may feel about cycle of life manipulation. . . . Glamorized animal captivity. . . . Cute but had some big words or said some things I would not want to show my kids. Sensitivity to an adult audience. I felt comfortable, but some adults may not. I was unable to determine the target audience—too unorganized for children to learn from.

1 Overly sensitive to audience. The purpose of this video is not mentioned at all! What age does the video appeal to?

Audio

5 The music with the animal movements was good. Good narration. Vocals are clear and distinct. I gave the audio a "5" because we heard animal sounds, music and talking. Clear with no distortion. You can hear the affection in the caretaker's voice. Great—it had very upbeat and appropriate music throughout.

3 The narrator/speakers spend the time talking to each other without respect for audience's understanding. The music is piped in; in some instances was kinda' cheesy.

1 Poor audio quality—couldn't understand all words clearly even though volume was high. Fuzzy audio.

Visual

5 Very up-close and personal filming. Very good shots of the animals. Outstanding visual with good quality.

3 Average because the pictures were great but there was a line on the top of the screen that stressed me out. Filming made me dizzy—moving close up and far away. The visuals are jumpy and poorly focused.

1 (No student assigned a 1 here)

After watching and assessing the video, students came to the dry erase board and marked their numbers 5, 3, or 1 under the five categories. Then volunteers were solicited to share orally how they had evaluated sundry categories and to defend their ratings. The discussion invariably led to a lively debate as students justified their responses. After students adamantly defended their choices and realized the divergence in their responses, I asked them why their responses varied so much. At this point, many looked at me as if I were the culprit—and rightly so! We then brainstormed together, identifying ways that I could have made this activity more objective (that is, about hitting specific targets), which would have resulted in more convergent responses. For example, what was meant by "sensitivity to audience"? Was it to be assessed for young children or for adults? Regarding the audio, did I mean the clarity of the sound or the harmonious integration of music, talk, and animal sounds? For the visual category, did I intend them to consider only the quality of the shots of the animals, or were they to consider the fact that the video actually was off the track and jumped in places? Students then discovered that my omission of objectivity—of clear targets to hit—in the assignment resulted in much subjectivity and personal interpretation on their part. My goal was achieved!

I concluded the discussion by suggesting that more specific guidelines regarding targets would have resulted in more consensus and more objectivity in their assessments. Targets help to remove some of the subjective interpretations and provide focus on specific "factual" traits. At this point, I suggested that a rubric can be instrumental in identifying what to look for in one's evaluative efforts. However, I cautioned that a rubric, to some degree, puts everyone on the same page. This can be a drawback if you want to encourage unique, subjective interpretations in assessments. If your instructional goal or target is unique responses and narrative assessments—like those elicited

by the video—allow more flexibility by not using a rubric.

Furthermore, convergent thinking “is directed to a preset conclusion” (Kellough and Roberts, 1998, p. 530) and is considered lower-order thinking. Divergent thinking is considered higher-order thinking and is defined by Kellough and Roberts as “requiring analysis, synthesis, or evaluation” (p. 287). Finding the value in students’ divergent responses, such as those represented in this activity, may be the real treasure trove.

So as you devise assessment instruments, ask yourself whether your target is to get students to realize core traits about something such as a video that you perceive to be essential knowledge or whether you want them to write reflective narratives that support their assessment of the audio as a 5, 3, or 1, which would promote higher-order thinking. Know your target. My target was to have my students experience the subjectivity in assessment and to discern how I could have promoted more convergent responses and thinking by being more explicit about the assessment tool. However, my treasure trove, my valuable discovery, was learning just

how delightfully divergent and high-level students’ thinking can be when they are left to their own devices—and how persuasively they can support their arguments! The amount of guidance given in this lesson may have been just enough to balance the divergent and convergent thinking of students. But then, that was not my goal; rather, like so many irresistible, “valuable” discoveries of animal treasures at the antique shops, it was my treasure trove. ■

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Longitudinal Data

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